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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR  | ATTORNEY DOCKET NO.      | CONFIRMATION NO. |
|---|-------------|-----------------------|--------------------------|------------------|
| 10/668,451  | 09/22/2003  | Gregory Kent Williams | 229278                   | 2349             |
| 35023   | 7590        | 12/19/2005            | EXAMINER                 |                  |
| LUCE, FORWARD, HAMILTON & SCRIPPS LLP<br>11988 EL CAMINO REAL, SUITE 200<br>SAN DIEGO, CA 92130 |             |                       | HOEKSTRA, JEFFREY GERBEN |                  |
|   |             |                       | ART UNIT                 | PAPER NUMBER     |
|   |             |                       | 3736                     |                  |

DATE MAILED: 12/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



## **DETAILED ACTION**

### ***Priority***

1. Applicant's claim for the benefit of a prior-filed application, in this case application 60/413,267 filed on 09/23/2002, under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has complied with the conditions for receiving the benefit of an earlier filing date.

### ***Information Disclosure Statement***

2. The information disclosure statement(s) (IDS) submitted on 06/08/2005 is/are acknowledged. The submission is in compliance with the provisions of 37 CFR 1.97 and 1.98. Accordingly, the examiner is considering the information disclosure statement(s).

### ***Claim Objections***

3. Applicant is advised that should claim 1 be found allowable, claim 12 will be objected to under 37 CFR 1.75 as being a substantial duplicate thereof. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

### ***Claim Rejections - 35 USC § 102***

4. It is noted the Examiner is reviewing the patentability of the claimed invention based upon preliminarily amended claims submitted on 11/05/2004 that supercede the original claims submitted on 09/22/2003.

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1-4, 7-9, 12-14, and 17-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Ferrera (6168570). For claims 1 and 12, Ferrera discloses a sensor catheter comprising: a catheter 22 capable of coupling to a processing unit, a distally disposed sensor (column 9 lines 39-45), and a plurality of wires 12,16 capable of coupling to the sensor, extending the length of the catheter, and further comprising first and second bundles of wires twisted together (column 8 lines 39-43). It is noted that twisting wires into bundles serves to reduce electromagnetic interference.

7. Moreover for claims 2-4, 7-9, 13-14, and 17-19, Ferrera discloses a sensor catheter comprising first, second, and third wire bundles, each bundle having multiple strands each (column 8 lines 39-43) and also wound together and disposed within an outer sleeve 34. It is noted that disposing twisted wire bundles within a sheath serves to shield and thereby reduce electromagnetic interference.

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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9. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

10. Claims 5-6, 9-10, 15-16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrera in view of Danisch et al (6563107). Ferrera discloses the claimed catheter sensor except for the plurality of wires being twisted in a clockwise or counterclockwise manner. Danisch et al teaches a sensor catheter comprising winding wire strands in clockwise and counterclockwise directions (column 25, lines 42-46). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the sensor catheter as taught by Danisch et al, with Ferrera for the purpose of reducing cross-talk between wiring couples and reducing electromagnetic interference.

11. With regards to claims 9-10 and 20, Ferrera discloses the claimed catheter sensor except for the first and second wire bundles being wound in opposite the same directions or the first and second wire bundles being wound in the same directions and wound together in the opposite direction. Danisch et al teaches a sensor catheter comprising winding two wire bundles in opposite directions and winding them in the

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same direction but winding them together in the opposite direction (column 25, lines 42-46) and as best seen in Figures 30 and 34A. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the sensor catheter as taught by Danisch et al, with Ferrera for the purpose of reducing cross-talk between wiring couples and reducing electromagnetic interference.

12. Claims 1, 3, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrera in view of Osadchy et al (6266551). Ferrera discloses the claimed catheter sensor except explicitly stating the wires are wound to reduce electromagnetic interference and/or cross talk between wires and wire bundles. Osadchy teaches a sensor catheter comprising winding pairs of wires (column 11 lines 34-49) to reduce electromagnetic interference. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the sensor catheter as taught by Osadchy, with Ferrera for the purpose maintaining a high signal-to-noise ratio, thus reducing cross-talk between wiring couples and reducing electromagnetic interference.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeffrey G. Hoekstra whose telephone number is (571)272-7232. The examiner can normally be reached on Monday through Friday, 8:00 a.m. to 5:00 p.m. EST.


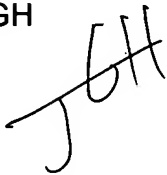
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Max F. Hindenburg can be reached on (571)272-4726. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JGH



MAX F. HINDENBURG  
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